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GROUP

L.I.S.T.ING

June  
1986

Issue Price \$1.50

#### MEETING NOTES - MAY 1986

The May meeting followed a short "swapmeet" at which members traded software and hardware items. Some real bargains were offered: TS 1000 cassettes at \$.50, MCScript @ \$5.00, DK Tronic s Light Pen \$20 (equivalent values).

Paul D wrote a check for \$650 to Chuck R. He and Patrick F. will set up a new treasury. Iggy G. moved that since Patrick would have to pay taxes on the account's interest, he should keep same. This motion carried by a vote of 13 to 3.

Chuck R. noted that the treasury was a little "lean", and that maintaining the current levels of newsletters, tape, refreshments, mailings etc. ~~might~~ not be possible. Some facts and figures:

- 1) We publish about 125 copies of LISTing/monthly - 100 go to members, 25 are exchange copies.
- 2) A 20 page issue costs 89¢ for reproduction and direct postage alone. Indirect postage, prep charges and office expenses run the total up to about \$1.00-\$1.10.
- 3) Each edition of the Library tape costs us about \$40 to produce and mail. (Tape purchase, envelopes, stamps, lost tapes, etc).
- 4) Refreshment fees run at least \$10/meeting (\$.50 per attendee).
- 5) We mail sample pages of newsletters (22¢ plus reproduction) and answer inquiries from members and non-members. Cost varies.

Note too, that, up until this point, no member has been compensated, in any way, for his labor; only for materials.

Paul D. noted that as Izzy G. was moving to Florida, there was no longer a newsletter editor. Further, submission to the newsletter have not been overabundant of late. A suggestion to go to a bimonthly format for the summer months July-August was made, and will probably be executed. Further, reduction to 6 pages (12 page numbers) will cut production costs by 40%. This may be necessary in the Fall. Exchange newsletters will be reviewed by an executive committee. Members were urged to suggest a new exchange policy.

#### NEXT MEETING

The June meeting was originally scheduled for June 15th, but as this is Fathers Day, it was reconsidered. June 22nd was proposed.

#### DEMO

Paul D. had a demo copy of W.J. Pederson's "Sherlock" program on hand, but as there was no 2068 at the meeting, the program couldn't be run.

#### TS COMPUTEREST

Was quite a success for most vendors and attendees. Paul D. got to meet Tom Bent, W.J. Pederson, the Chamkis Bros., the Duncan s and many other TS notables. Tremendous bargains were available at closing time (TS printers \$19.97).

#### EDITOR NEEDED

A volunteer for the position of newsletter editor is needed, immediately. Please come to the June meeting and put your name before the membership.



#### SUBSCRIPTION NOTICE

Please check your mailing label. Above your last name you will see the month and year in which you will receive your last issue of LISTing (LLIST) Newsletter. If this number does not agree with your records please let us know

**LIST GROUP**  
P.O. BOX 438  
CENTERTOWN, N.Y. 11721-0438

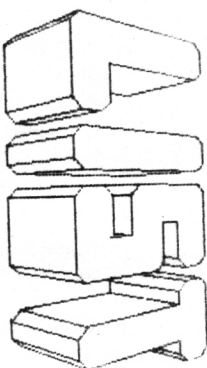
JUNE 1986

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NEW PUBLICATION

CAN (Computer Astronomy Network), edited by Barry Malpas, covers use of computers by amateur astronomers. Not TS specific, but the issue we've seen, May-June 86, had only TS 2068 programs in it. CAN is \$2.50 for 6 issues checks to B.D. Malpas, 20 Helen Street, Warren, N.J. 07060.



ATTENTION: SPECTRUM ROM USERS

It has come to our attention that some recent issues of Spectrum "ROM's" from the U.K. may not work with the Oliger board/emulator system. These are NEC 23128's. They work fine in other applications (e.g., in a Dewey EMU-1), but not in certain configurations of Oliger cartridge board. The ROM's are not "defective" per se, so you may not be able to return them. AMI ROM's seem to work in more set-ups than the NEC. Exact Data on decoding and/or timing problems will be published as soon as we receive it.

PRODUCT REVIEW--True Descenders Epron Chip

Source: RMC Enterprises, 1419 122 7th St. Oregon City, OR 97045  
Price: \$14.95

If you have been longing to join in your hardy Cornish Banquo of Seikoshu 100 because of the flyaway 'g's and p's don'ti RMC has succeeded in joining the lower-case characters with the replacement epron version 3.0. I had nearly paid 10 times as much for a new printer solely because of the humiliating capital p's in front of common nouns smack in mid-sentence. Ungrammatical as ugly. Using Teasprint fonts even for family letters had been devouring pages because of the 48-character limit per line.

**So you are not a school teacher; who wants to look like the poor kid among the technocrats?**

Before ordering you must find out which of 3 versions was issued in your CB so the proper replacement epron can be sent--there'll be letters like 4AE-0, 3LE, or 3EL-1 on the largest chip on the control board inside. I just looked for anything that had one set of those letters; sure enough there sat a 3EL-1. The source will send you a corresponding RMC#1,2, or 3. And they are prompt even when paid by personal check--roughly 3 weeks even allowing two weeks for personal check to clear.

Installation was relatively easy (3 attempts with stubby fingers and a dental mirror) but cramped awkwardly for careful positioning of pins. Tip your dip switches for auto test and try it without replacing the 5 screws to case top. That rather row of pins is hard to see for positioning but may be a cinch with some special tool generally unknown to novices. The point is a Rivetz can do it.

Progress--progress--pretty, huh?

Submitted by Joan Kealy

\*\*\*\*\*  
**KEYBOARD MANIA - Part 5**

\*\*\*\*\*  
By Cedric R. Bastiaans © Page A

NOTE 1:

I encountered several problems with intermittent ribbon cable connections in the original TI cable of the TI-99/4A KB. From just one, to ten (!) out of the fifteen conductors! This is probably caused by these keyboards being surplus and therefore not packaged (= not protected) and thusly subject to a lot of abuse.

In hindsight it is therefore much better to REMOVE the original TI cable altogether, use a new 7-inch length of 13-conductor ribbon cable instead of the 5-inch one I recommended in paragraph IX.8 of Part 4. Then, do away with the 15-pin header strip and check out your modified circuit board directly against the solderpads 1 through 15. Solder the new ribbon cable directly to these pads, again using the "twistor" instructions of figure 13.

NOTE 2:

This installment will again address itself to keyboards in general. It will give you hints and tips on finishing your keyboards, either a large, multiple-key version or a modified TI-99/4A.

Details on the installation of the Korean-made (SE-JIN) TI keyboard (beige keys) will follow at a later date.

But I have again to voice my opinions about this version of that keyboard. I stress the point that the Japanese-made (ALPS) KB (black keys) is much to be preferred. Compared to it, the SE-JIN KB requires more PCB trace-cuts, more jumpers, has confusing, poorly executed keyswitch symbols making it VERY EASY to make mistakes in your modification efforts. In addition, though the physical modifications to the computer case are certainly not impossible to do for most of you, they're more involved.

Then there are some subjective considerations. I already gave you my impression of the tactile feel of the SE-JIN KB, but there is also the beige color of its key's. It's my considered, artistic opinion that BEIGE does not look good on SILVER!

X. HOUSING AND/OR FINISHING THE KEYBOARD

X.1 LARGE KEYBOARDS

It is imperative that you find yourself a suitable housing for the keyboard AND the computer board.

I think it's ludicrous to have your keyboard in a case separate from the computer case, like for instance the Memotech KB for the TS1000/ZX81. The Sinclair/Timex computer systems already suffer from the many piggy-backed add-ons they so often require; one doesn't need yet another, large-size add-on!

I have found a keyboard/computer case that is just perfect for our TS2068.

It is made by L M B, 2946 East 11th Street, Los Angeles, CA 90023 and it is their model KB-17 "The Keyboarder", measuring 7" deep x 17.25" wide x 3" high in the back and 1.5" in the front.

I do not know if L M B would accept mailorder or OTC purchases; I bought my case from ITC Electronics in LA. It is certainly worth finding out or otherwise have your favorite electronics store order one for you.

The LMB case is made in two U-shaped parts and had plenty of room for my TS2068 computer board, the two extra PCB's for dedicated key circuitry and the 77-key full travel keyboard (36 dedicated key functions!). Figure 15 is a photograph of the case, opened up to show its contents. The computer board is mounted on stand-offs, next to the leftmost and rearmost case walls.

I had to make several cuts in the case, which is made of aluminum and therefore easy to work with.

Cutouts were made in the lefthand wall, for the ON-OFF SWITCH, the DB-9 JOYSTICK PORT and I also made an opening for a SAVE/LOAD SWITCH.

In the rear are 5 cutouts for the POWER, TV, EAR, MIC and MONITOR receptacles as well as 2 more, for another DB-9 connector (RGB output) and for the EXPANSION PORT. The computer board needs careful alignment, to insure proper mechanical and electrical connection of peripherals to the expansion port.

The second joystick port is too far away from the righthand case wall and I have elected not to use it. I don't play shoot 'em-up games on my computer and consider one joystick port sufficient for any of my needs. If you do need the second port, use a set of male/female DB-9 connectors and a short 9-conductor cable to make yourself an extension.

Then there is an opening in the bottom of the case for the little loudspeaker. I suggest you use something to protect the speaker cone (I used a piece of perf-board).

The case top needs of course a cutout for the keyboard and I also added an opening for an LED AC power light.

There is no room nor is there a need for a lift-up door for the "COMMAND CARTRIDGE". Instead, I made an opening in the front wall and used plastic parts of the now expendable computer case to construct a proper loading ramp for the cartridges, Spectrum ROM emulators and such. The cartridge "disappears" completely into the case, when inserted, so it requires a "retrieval" loop tied to its handle. To prevent undue collection of dust, I cut the expansion port COVER to size, to fit the opening I made for the Command Cartridge port.

Since I also have leather craft and woodworking as other hobbies, it stood to reason that I would finish my computer case with genuine black morocco leather, while the endpieces are veneered with real Brazilian Rosewood.

I'm quite proud of this combination and since there is no TS2068 nor a Spectrum like it, I've dubbed it "SPECTRE 2086" and this logo is proudly displayed on the case, in dark-red letters and numerals, a 3-dimensional epoxy-cast, also a product of my own hand...

Figure 16 shows the Spectre 2086, but the xerographic copy of a photograph does not do this thing of beauty any justice!

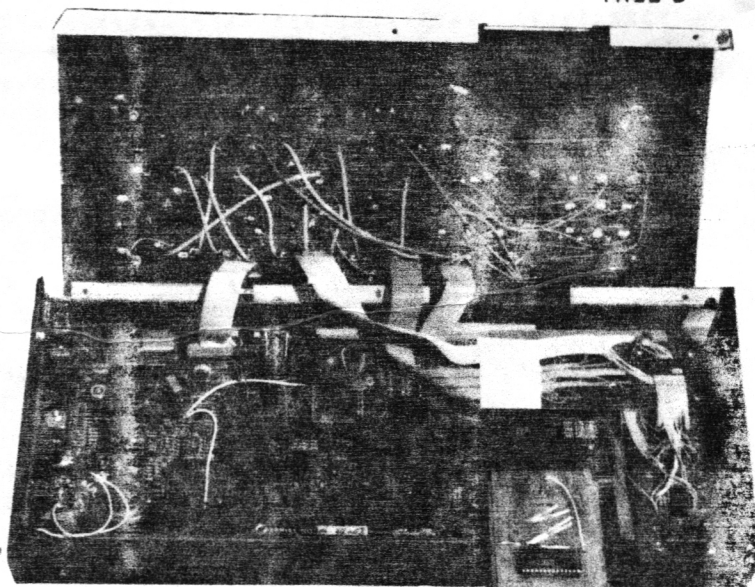


FIGURE 15

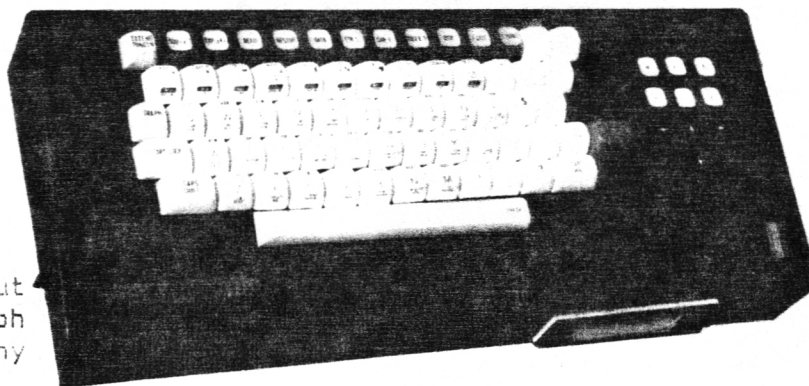


FIGURE 16

## X.2 THE TI-99/4A KEYBOARD

To pretty up the hardware project explained and detailed in Parts 3 and 4 of this series, I constructed a "mask" around the TI KB as it is mounted in the TS2068 case, using 1/8 inch BALSAWOOD, available in hobby shops.

Pieces of this wood can be very easily cut with our trusted #11 Xacto knife and glued to the metal frame-work of the TI KB with fast-curing epoxy. IT SHOULD NOT BE GLUED TO THE COMPUTER CASE! It can be made to cover the entire periphery around the keyboard and will still allow the removal of same...



The balsa mask is easily constructed; rounding appropriate corners should make it look quite pleasing. The wood is to be sealed with balsa filler coat (Aero Gloss 70-1, available in hobby shops) and sanded. Next, a coating with sanding sealer (Aero Gloss 71-1) and again sanded. A spray or two of quick-drying silver paint will give the case a very good-looking finish.

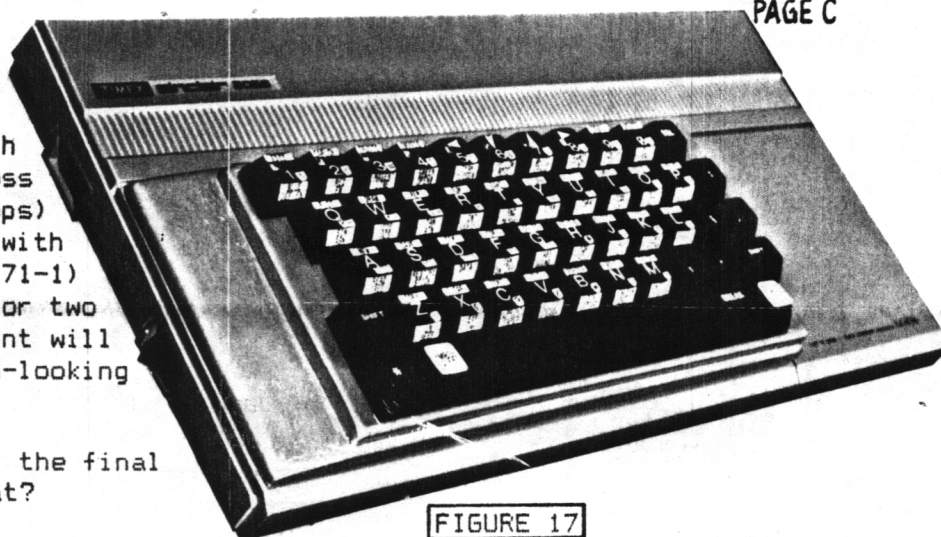


FIGURE 17

Figure 17 is a photograph of the final project. Doesn't it look neat?

## XI. THE KEYTOPS

Probably the most time-consuming job is the making of keytops. There is unfortunately no source for ready-made keytops, like there was in the days of the TS1000/ZX81 (Mule Electronics in the Los Angeles area).

I did see sheets of Spectrum keytops, printed on paper without any adhesive backing (how stupid!), but these are of such awful artistic quality, I would not wish them on the keyboards of my worst enemy! They also have rather GARISH red and green colors. I can not recommend them...

So what to do? I have to suggest two approaches to this problem.

But first, I need to discuss the next, related topic.

### XI.1 KEYBOARD "MAKE-OVER"

Ever since I've been involved in constructing real keyboards for the TS2068, I've followed a particular philosophy and maybe I can get you to side with me. Bear in mind that we have no room around the keys, so that all legends need to find a place on the keys themselves.

#### XI.1.1 - Keytops should be COMPLETE.

This means that functions and commands, not shown on the original 2068 KB, should be included. I'm talking about CONTRAST (key 9), TRANSPARENT (key 8), the COPYRIGHT symbol © (key P) and the BRACES (keys F and G).

#### XI.1.2 - I think that the keytops should reflect the TRUTH

What this means then, is that the GRAPHIC SYMBOLS (keys 1 through 8) should be depicted like the resulting video image! In other words the black part on the keytop design should correspond with the black symbol on screen!

#### XI.1.3 - Keytops should be COLOR CODED.

All my keyboards show SYMBOL SHIFT in red letters on white keytops. The corresponding symbols on the various keys are likewise in red on white. This makes for very easy recognition of these symbols, just like they were on the original ZX81/TS1000 keyboards.

On my 77-key KB, the EXTENDED MODE key is powder-blue, and the corresponding dedicated functions like READ, DATA, RESTORE etc. are black, but have a powder-blue top.

CAPS SHIFT is green on white, the corresponding shifted functions on the numerical keys 1 through 0 are also in green. The thought behind this is that these legends are to be put on the same line as the keywords on other keys and should therefore be differently indicated. Doesn't this make sense?

Fully color-coded keytops are only possible with transfer lettering, see paragraph XI.2.

XI.1.4 - TOKENS/KEYWORDS are important commands and should therefore be prominently indicated on the keytops. Thusly I have made them the uppermost legends, whereas I have put the EXTENDED MODE functions together, on the front slope of the keys, with the standard EM on top and the additionally SHIFTED EM function immediately below it. I find that these functions are then so much easier to locate.

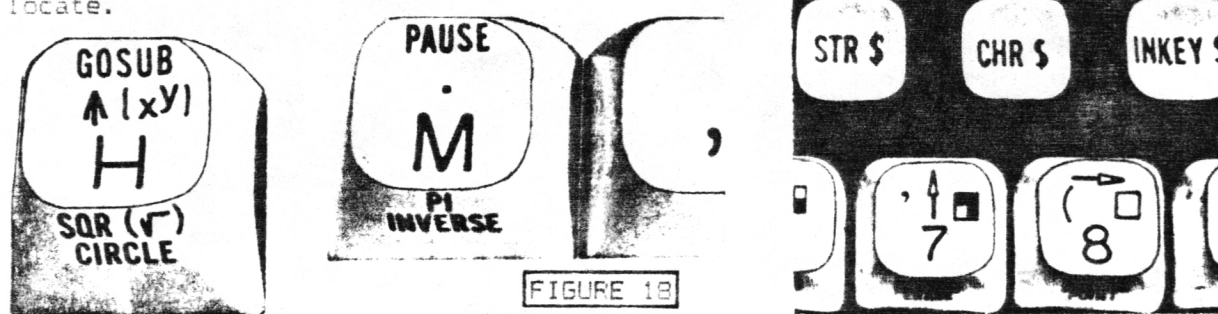


FIGURE 18

Figure 18 clarifies my intend; compare this with the corresponding keytops on the original TS2068 KB.

Then there are the additional color indications on keys 1 through 0 (BLUE through BLACK, including TRANSPARENT and CONTRAST on keys 8 and 9). These are to be put on the first line of the front key slope; on my large keyboard they are in white on a black background, to remind us that they are NOT EM-functions.

XI.1.5 - The ENTER key should be prominently marked and therefore be painted ALL RED, especially with the TI-99/4A keyboard, whose ENTER key is not any larger than the other keys, contrary to the norm.

## XI.2 USING TRANSFER LETTERING

These are the well-known "rub-on" letters and numerals, which can be obtained in a vast variety of fonts, sizes and also colors. Look for them in a large artist supplies store (like H.G.Daniels in LA). Not only do such stores have a large stock, they are also the ones that carry the better brands, such as Letraset and CHART-PAK. I can not vouch for the lesser known brands often carried by drugstores and department stores. Besides, they don't offer much choice.

Using rub-on lettering requires a good deal of patience and manual dexterity. I know that some people simply can not master this and they always wind up with "dancing" letters that are also inconsistently spaced. I prefer transfer lettering, because it can lead to very professional looking keytops, that are hard to distinguish from the real thing.

The keys have to be clean and dustfree before the transfer lettering is applied. The transfers should be properly burnished and the keys should be given several coats of a clear lacquer or varnish. BUT FIRST, CHECK THE CHEMICAL COMPATIBILITY OF THE CLEAR COAT WITH THE TRANSFERS!! Some coats could dissolve the transfers...

## XI.3 USING A FULL-SIZE DOT MATRIX PRINTER

Realizing that many people may not have the patience, agility or artistic inclination for transfer lettering, I have devised a method using an 80-column dot matrix printer, black and red ribbon and adhesive-backed 1"x3.5" labels. The latter should be of the PERMANENT type and not be removable.

The ribbon should preferably be brand-new, but if you have the MSCRIPT wordprocessor, it is possible to make high-contrast printings using the built-in BOLD FACE mode, IN ADDITION to the DOUBLE STRIKE mode of your printer!

Use the CONDENSED printmode on your printer (17 char./inch) and type all 26 key-words, 26 EM commands, 33 SHIFTED EM commands (these do NOT include the 3 characters on keys Y, U and D), 6 shifted commands of keys 1 - 4, 9 and 0, 10 "color" commands (incl. TRANSPARENT and CONTRAST), BREAK, ENTER, DELETE and other dedicated keytops on the labels, leaving adequate spaces between them. These should be in BLACK. Don't forget to add the 3 hidden characters of paragraph

XI.1.1 to the commands RESET, ON ERR and SOUND!

Note: each word should be limited to seven characters, so type INV.VID instead of INV. VIDEO, TRU.VID rather than TRUE VIDEO.

Similarly, in RED, type 8 spelled-out symbols (AND, OR etc.)

In addition, SYMBOL SHIFT (the two words should be typed on two lines, one directly below the other) and this should be done twice. Leave plenty of room around these prints; we are going to make a complete keytop out of them, covering the entire upper surface of the key.

Now switch to the ELITE print mode (12 char./inch) and type all the remaining 28 symbols (!, @, # etc.). You will find that it is not possible to type symbols like <=, <> or >=. You will have to compose them with the symbols <, > and =.

Back to BLACK and still in the ELITE mode. Print the remaining 3 characters [, ] and \. Also, the 8 graphic symbols on keys 1-8; most dot matrix printers have them. Remember to do these symbols "in reverse", e.g. the symbol on key 1 should be black in the first quadrant and not in the 2nd, 3rd and 4th, as erroneously depicted on the TS2068 keyboard.

Having successfully done all of the above, we are ready to cut the labels to size.

With a #11 Xacto knife, carefully cut 11 x 3 millimetre labels, properly centering the keyword, symbol or command.

Do the same with the red symbols, but limit the length of the labels to the size of the command or symbol (minimum of 3 mm for single-digit symbols, maximum of 7 mm for the longest spelled-out symbol commands).

Cut a complete keytop surface label around the SYMBOL SHIFT printings.

Next, cut out the eight graphic symbols.

Fancy your own arrowheads for the 4 cursor keys.

There is no need to replace the existing TI keytops for SHIFT (2x)

I do hope that I have been sufficiently clear in the foregoing. But I should leave something to your own judgement and creative abilities.

Using tweezers, peel-off each label and carefully position it on the appropriate key. The labels should then be firmly burnished, using a smooth piece of plastic. I like to use the cap on a "Sharpie", the well-known permanent fine-point marker. I have to emphasize cleanliness in these operations; fingerprints cause body oil to inhibit the permanence of adhesion.

Next, finish the keys on five surfaces with several coats of clear lacquer.

Figure 19 shows a typical key, finished as per above instructions. Compare it with the "S"-key on the TS2068 keyboard.

Keytops, fashioned in the manner explained by me, are surprisingly sturdy. This installment and the previous one were all typed on my first modified TI KB, in addition to typing in over 20,000 characters into a data base.

There appear to be no signs of wear! I know from experience that the original TS2068 keytops would not have survived this without some signs of scuffing...



FIGURE 19

I sincerely hope that you will indeed try the hardware projects described in these pages. Believe me, you won't know the joy of having a full-travel keyboard on your computer(s), until you own and work one!

Next installment: instructions to implement the SE-JIN TI keyboard...

## L.I.S.T.

April 28, 1986

ELECT. MAILMAN 516 234-0925  
 TRS-80/GEN'L \*  
 L.I.S.E. TRS-80 516 338-4083 Bill  
 Raferty  
 MIDAS 516 367-8619 Marc  
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 Wohlers  
 ELCOBASE 516 473-5438 ERIC  
 GREEN SANYO #!  
 INNOV-80 516 482-8491 R.Ni  
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 elasco 7p-7a wkdye 24hrs/wknds  
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 SEARCHLIGHT 516 724-0971 Fran  
 k LaRosa TRS-80 !  
 TEXACOM 516 757-2227 R.K.  
 Jiminez  
 ELECT. MAILMAN 516 234-0925  
 TRS-80/GF  
 -->  
 BAMS 718 362-1040 Roge  
 r Kaplan \*  
 CONNECT-80/QNS 718 441-3755 Robe  
 rt Rosen RADIO SHACK \*\$  
 CONNECT-80/S.I. 718 442-3874 Stat  
 en Island NY \*  
 RAVEN BBS 718 471-9015 Joe  
 Eure

Dear Paul:

Can you can include the following classified in the next issue of List:

For sale: Aerco Floppy Disk interface for the 2068. Includes 2 5-1/4 drives and 256K of ram on the interface board. Like new condition. Total price \$275. Call 212 535-1651.

I hope to make it to the next meeting and will give you a call to remind myself  
 Thank you.

*Car A. Barut*  
 Cem Barut

NY, NY 10028

LIST

Dear Mr. Donnelly

I would like to sell the following:

- 2 Timex 1000's w/ 16K Ram
- 1 Timex 2020 Cassette recorder
- 1 Timex 2040 printer
- 1 Carton Printer paper

As a lot \$60.00

G.J. Spillman  
 50 Verbena Ave.  
 Floral Park, N.Y. 11001

516-352-1209

FROM THE DESK OF... TONY BROOKS

Apr-86  
 Address: Brooks  
 Generation: MI  
 BBS:

Please find enclosed cheque for \$15  
 for subscription renewal  
 Please also note change of address to

Manhattan  
 EA 30006

5 thanks LIST is the best Terminal/  
 Quikbase user group magazine around.  
 Keep up the good work!  
 However what will happen to Sinclair  
 computer now. Are they sold out to  
 android?

Best wishes

Tony Brooks

Good to hear! Any takers?

APRIL 13, 1986

L.I.S.T. GROUP

CENTRAPORT, N. Y. 11721

DEAR TIMEX / SINCLAIR USER GROUP,

I WISH TO SELL THE FOLLOWING ITEM, AS IT IS HARD TO GET  
 SUPPORT HERE IN ALASKA. THE PRICE QUOTE IS FOR ALL NOT PIECE  
 BY PIECE.

FOR SALE:

ITEM	APX. VALUE
(1) TIMEX-SINCLAIR 2068	\$119.00
(1) SANYO DMC850 HI-RES. COLOR MONITOR W/RGB I/P	\$500.00
(1) WINKEY BOARD 2000	\$ 20.00
(1) MILLENNIA E DS/QD DISK DRIVE W/INTERFACE	\$500.00
(1) PRO-STICK 2	\$ 30.00
(1) LOW PROFILE KEYBOARD	\$ 80.00
(2) EXTRA POWER PAKS & CABLES	???
(1) ROM-SWITCH	\$ 45.00
(1) BYTE-BACK MODEM (NEW)	\$100.00
(1) EXTRA T-S 2068 W/BAD BOARD-GOOD I.C.	???
(37) TAPES & CARTRIDGES	\$555.00
(15) BOOKS FOR T-S 2068	\$150.00
(1) TIMEX-SINCLAIR 2068 TECHNICAL MANUAL W/LARGE SCHEMATIC	\$ 30.00

APPROXIMATE VALUE over \$2,100.00. WILL SELL ALL FOR \$1,500.00.  
 BUYER TO PAY POSTAGE. REFERENCES AVAILABLE.

FOR MORE INFORMATION: S.A.S.E. TO

CARL E. JONES  
 BOX 2915  
 KODIAK, ALASKA 99615

(907) 486-6223 (No collect calls)



2192 Glenbury Ave.  
Lakewood, Ohio  
44107

216-226-4503  
CIS ID #75046,3420

March 23, 1986

## LETTERS to LIST

L.I.S.T.  
P.O. Box 438  
Centerport, N.Y.  
11721-0438

To the Officer's of "LIST".

Enclosed is my check of \$15.00 for renewal of my membership. You may apply the funds in either of two ways: - extend from the Apr.-86 expiration date, - or extend to your preferred Feb-Jan schedule and send me some of your back issues, if available. The back issues that I am interested in are Dec.84, Feb 85 & Mar. 85.

I would like to congratulate the membership for the high quality of research information that has appeared in many of your newsletters.

I also appreciate your efforts to pack as much as possible in each issue through photo reduction, but this method requires high quality printing to be readable. The printing of the March 86 issue was of very poor quality. Please take this as a friendly critic. As I am actively involved with my own clubs activities, I am aware of the extensive work and problems.

As a member of "LIST" I would like to suggest a alternate distribution of your library tapes on micro-drive and 3" disks. For these versions perhaps members could furnish you with blank cartridges and disks plus postage fees. I use the Zebra FDD & 3" disk format, which makes computing a joy.

Our club (Cleve. Sinclair UG) is in the process of gearing up to assemble club library tapes in a manner similar to your methods. If you are interested, perhaps we can arrange for a future mutual exchange of library tapes.

If anyone from your Club plans to attend the Cincinnati Computer Fest as your official representative, perhaps we can discuss ways our Clubs can be of mutual assistance to each other.

Ed to  
LIST  
PO Box 438  
Centerport, NY 11721-0438

See:  
I have the bundle, excuse  
feeling that Paul is really  
said he would NOT be editor  
of LIST anymore, but I am  
of LIST anymore, but I am  
of LIST anymore, but I am

Mr. Smith, here's a 3rd  
product review from someone  
news, someone has to  
speak to them - who better  
than a tech. writer.  
You've much better  
yourself to the editor. Please  
be not misled by the address  
will be directed to the editor  
of LIST because you  
don't reply.

sincerely,

Andrew J. Kosiorek

Andy Kosiorek  
president, Greater Cleveland  
Sinclair User's Group

Yes, Joan. Paul will  
no longer be LIST editor.  
He will however, be man-  
aging director of the NL, and  
a contributing author.

Thanks for your review, and  
"keep 'em coming"

Joe C. Smith Jr.  
P O BOX 36085 - FLORENCE, AZ 85232

L.I.S.T. (Long Island Sinclair-Timex) Group  
P.O.Box 438  
Center Port, N.Y. 11721-0438

March 21, 1986

Dear Sir:

I saw your Users Group listed in the 'Computer Shopper', April 1986.

I have recently authored and had published a New Software book for  
the T/S line of computers. The title of my book is:

"200 Computer Programs In BASIC For The"  
T/S-1000 Z/X-81 T/S-2068

This book is 8½" X 11", 225 pages, and cost \$7.95 + \$1.50 p&h for  
U.S.A. orders. \$4.00 p&h for foreign orders.

This book is available exclusively from the following outlet:

{ BIT/S Software  
3202 West Fillmore  
Phoenix, Arizona 85009 }

I wrote this book because I wanted to make available, a large number  
of Very Good Original programs to fellow T/S users, for a Very inexpensive  
price. I feel I have succeeded.

I have enclosed a full size copy of the books cover and a complete  
listing of its contents.

Please circulate this material through your membership. I will greatly  
appreciate your assistance.

Thank you in advance for your time and assistance.

Also, if your club issues a newsletter, Please send me a sample issue.

LIST  
PO Box 438  
CENTERPORT, N.Y. 11721-0438

Enclosure:

Sincerely;

Joe C. Smith Jr.  
Joe C. Smith Jr.

Received April "LIST" and find my  
label my Apr-86. Enclosed is my check for  
\$12 which I figure should pay me up until  
January 1987, and put me on the same  
schedule as most of the other members.

Probably the best \$12 I'll spend all year.  
For the record, I'm a TS 2068 user with 280  
printer, and just recently 2050 modem. Would  
appreciate more material on modems, communications,  
BBS, etc.

Thanks  
Tom Quinn

LONG ISLAND  
SINCLAIR TIMEX GROUP

## BEST HARDWARE BUYS

Steel Dual Full Size Disk Drive Case \$29.95

XL51-3101R BOSCHERT Switching Power Supply - +5VDC 23 Amps,  
+12 VDC 21.25 Amps, -12 VDC 2.5 Amps, -5VDC 2.5 Amps \$15.00

XL53-4601R BOSCHERT Switching Power Supply - +5 VDC 26 Amps,  
+12 VDC 22.5 Amps, -12 VDC 2.5 Amps, -5VDC 2.5 Amps \$20.00

Above items available at : M C HOWARD ELECTRONICS, INC.  
9419 NEILS THOMPSON DRIVE, AUSTIN, TX 78759 (512)-837-2525

\*\*\*\*\*

5 1/4 Inch Full Size Disk Drives, Double Side QUAD Density,  
80 Track, 96 TPI, 6 Ms Access Time, Shugart Compatable,  
Manufactured by CONTROL DATA CORPORATION (CDC is known for  
quality disk drives). Price \$39.95 ea or 2 for \$69.95.

B G MICRO, P.O. BOX 280298, DALLAS, TX 75228 (214)-271-2462

\*\*\*\*\*

Dual 50 Pin, .1 inch Spaced, Edge Connector, PC Board Terminals  
3/16" long @ \$1.50 each. PN EC-1514.

Dual 50 Pin, .1 inch Spaced, Edge Connector, Wire Wrap Terminals  
9/16" long @ \$3.95 each. PN EC-0125.

MARLIN P. JONES & ASSOC., P.O. BOX 12685, LAKE PARK, FLORIDA  
33403-0685 (305) 848-8236. Request Catalog 86-1

All of the above distributors accept credit cards and are  
reliable. Bob Gilder

Dear Paul

Again everything stood still  
around here while I read my new  
copy of LIST (a dark one). There  
was a good mix of articles and  
material that I can use. A big  
pat on the back to all who con-  
tributed. I admire the level of  
expertise evidenced by some of  
our members and happy for the  
opportunity to benefit therefrom.

Being a Floridian and summer  
traveler makes it impossible  
for me to attend meetings. How-  
ever I do contribute by paying  
 dues well in advance, penning a  
thank you, using the material in  
the news letter and tapes, and  
even venturing to contribute a  
few sample hardware tips.

Speaking of tapes, I do not  
mind being placed in a secondary  
mailing category but I do mind  
any reference to membership or  
personal status because program-  
ing is my weakest area and I  
find it difficult to add a pro-  
gram to the tape. I find that  
the tape materials are very help-  
ful and look forward to getting  
them. So far I have not received  
4.0 yet. I hope it comes soon  
before I leave for my northern  
travels and get involved with  
the forwarding of mail complica-  
tions. This happened to me last  
summer and resulted in the loss  
of a few days.

I am enclosing my summer ad-  
dress and dates so that I can  
receive the news letter and tape  
without delays.

Thanks again for your effort.

Marinus W. Heuseveldt

MARINUS W. HEUSEVELDT

### HARDWARE TIP

Many of our Sinclairites  
have been experimenting with  
possible improvement of our com-  
puters performance. I note that  
eliminating the cap on the mic  
jack does improve the shape of  
the pulse and gives saves that  
are more easily loaded. Other  
changes in the mic circuit seem  
to be overkill.

The ear circuit can be improv-  
ed by changing the value of R11.  
It is now 6.8 but reducing its  
value increases sensitivity.  
There is also a tendency to make  
the recorder volume control set-  
ting more critical. A value of  
3.4 is a good compromise between  
improvement and fussy volume  
control for ease of loading im-  
provement. This change can be  
made by soldering another 6.8  
resistor across the existing or  
better yet by substituting a 3.4  
ohm resistor. Note--BE CAREFUL  
IT IS EASY TO BLOW A CHIP AT  
THIS SOLDER POINT.



LONG ISLAND  
SINCLAIR TIMEX GROUP

EVER - Short for every

CIRCUT - Modification to those little electronic patterns on your printed circuit board.

PROTOCOL - The preferred food of Hackers. Bulk & vitamin supplement.

Annual Dues.....\$15.00 Issue Price \$1.50 (includes P&P) - Double Issues \$3.00

One "Sample" copy sent upon receipt of large SASE.

Copies provided on exchange basis with other bona fide user groups.

L.I.S.T.ing is published monthly by LIST (Long Island Sinclair Timex) Group.  
a non-for-profit users group.

#### NOTE: PARTIAL YEAR MEMBERSHIPS AVAILABLE

Normal membership year is Feb. through Jan. at cost of \$15.00 (US)  
By keeping as many members as possible on that basis, we keep our costs and chances of error down.

If you wish to begin subscribing later in the year, please sign up for the end of this year and all of next.

We will accept partial years or different subscription runs, on a limited basis (particularly from members outside the U.S.)  
But, please be aware that, in addition to possible rate increases, your "account" must be handled "by hand" and errors may occur.  
International (ex Canada) subscribers will receive as many issues as we can afford to mail

#### POLICY OF CONTRIBUTED MATERIAL:

We are always looking for interesting articles, programs, reviews etc., to keep our members informed and entertained. Articles submitted for publishing are printed on the following basis.

- 1) You, the writer, maintain the full copyright and can resell, lend or give away your work, as you wish.
- 2) We are granted the right to publish your material, in the original issue in which it appears. Reprints (e.g., to supply orders for back issues) will include your material as a part of its original issue. We are not allowed to sell your material in any other way, without your express written consent.

We can't (for now) pay you for your material, but you will receive a copy of the issue in which it is published, even if you're not a member. You may get more than one issue and you will definitely earn the respect and appreciation by your grateful peers.

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Please note our new address - PO BOX 438, Centerport, N.Y. 11721-0438  
Mail sent to the old address must be forwarded there and will take longer to reach us.

All are equal  
in alcohol content.



Beer: 4.5% by volume; Wine: 11% by volume  
Liquor: 50 proof or 40% by volume.



#### FROM ONE NEWSLETTER

Similar  
exempt  
resistant  
rivials  
issues  
perpiheals  
corresponds  
certian  
inexprienced  
climed  
gaint  
paly  
periphals  
abundent  
preform  
original  
orginal  
seveal  
thi  
acheive

#### Additions to the 'Computer Dictionary'

##### A call for Help

Our resident word analyzer has requested a Sabbatical after seeing all the new words listed at the left, in just one recent issue of a TS publication. We need help defining these words as they are, no doubt, significant additions to our computer vocabulary. If any member knows the meaning of any of these words, he or she is encouraged to send in their evaluation (or guess) to LIST, PO BOX 438, Centerport, N.Y. 11721-0438.

Gain the recognition of your peers! Send in your answers today.

Hint "periphals" and "perpiheals" are probably the same and may be already defined

#### FROM OTHERS

prisioners  
upcomeing  
instalment  
takeing

#### Vendor Report

Robert Fischer  
221 Scoggins St.  
Summerville, GA 30747

Extensions Newsletter for  
Pro/file improvements. \$6/issue

#### NOTE:

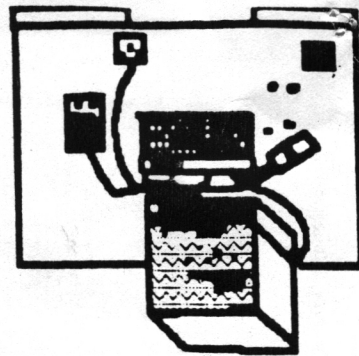
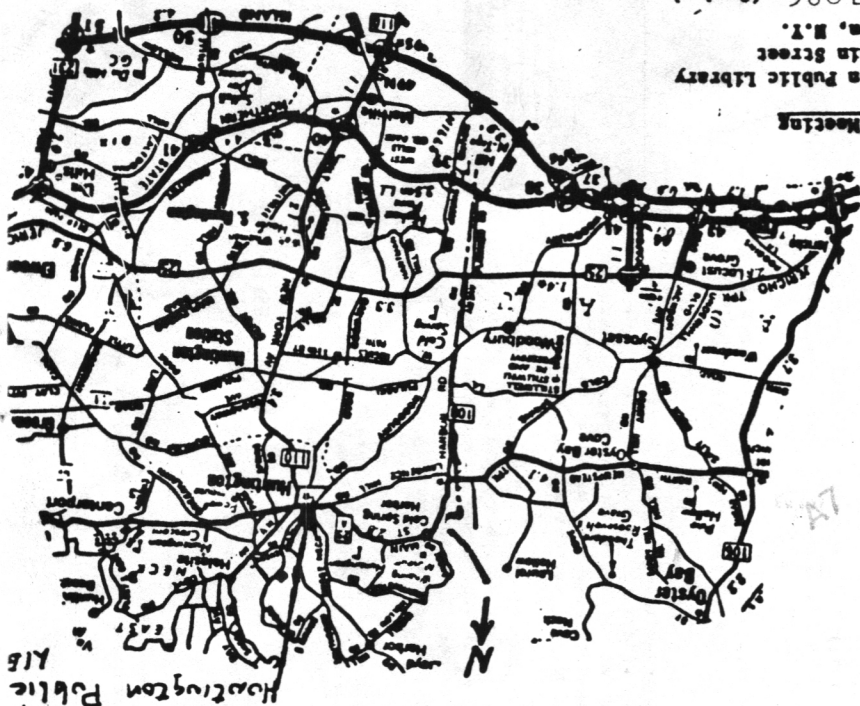
SPECTRUM ROM'S

List Associates no longer stock Spectrum ROM's. They will special order them for \$15.00 each. Delivery can be up to 2 weeks.

# LIST

L.I.E. or N.S.P. to Rt 110 N.  
 Follow 110 across Rt 25 to Rt 25A  
 Go left on 25A. Library is 4 blocks  
 down on the left.

June 22, 1986 (Sunday)  
 at 2:PM  
 Huntington Public Library  
 Rt 25A Main Street  
 Huntington, N.Y.



2 PM  
 Library  
 Huntington, NY  
 Group  
 Sinclair  
 Long Island

BOX 438  
 EFFORT, N.Y. 11721-0438



TO:

Don  
 3310 Clover Dr S  
 Cedar Rapids IA  
 52404

Jan-87

Lambert